Assignemtn No 5

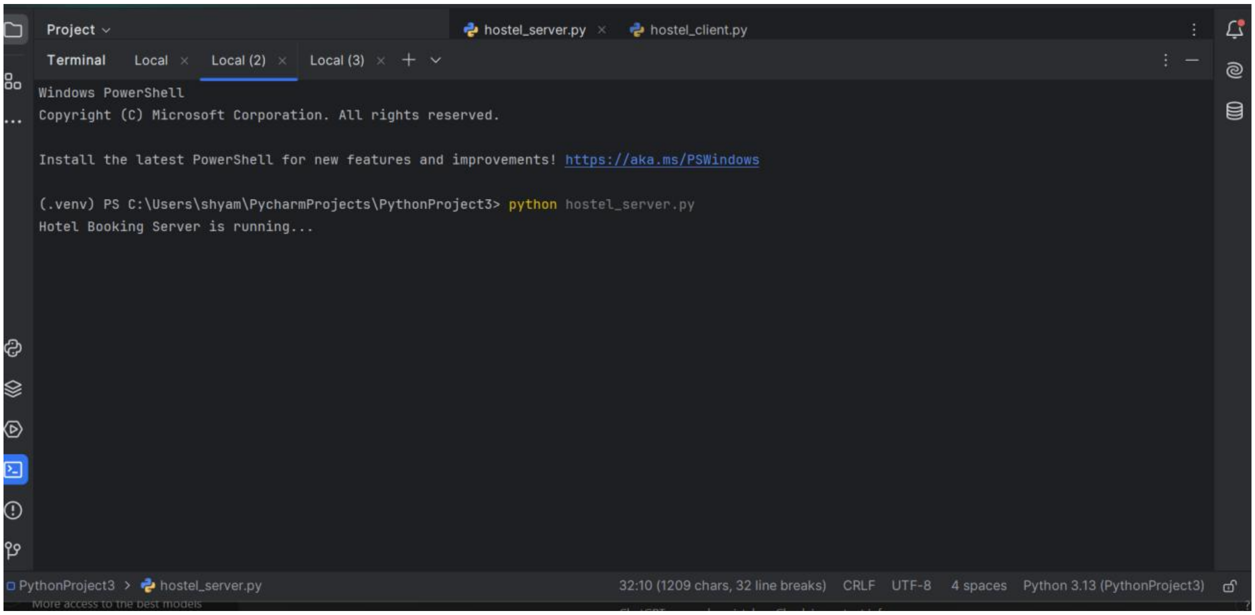
DC
Code:

Hostel_server.py

```
import Pyro4

@Pyro4.expose
class HotelBooking:
    def __init__(self):
        self.bookings = {}  # Stores guest_name -> room_number

    def book_room(self, guest_name):
        if guest_name in self.bookings:
            return f"Guest '{guest_name}' already has a booking in Room
{self.bookings[guest_name]}"
        room_number = len(self.bookings) + 1
        self.bookings[guest_name] = room_number
        return f"Room {room_number} booked for '{guest_name}'"

    def cancel_booking(self, guest_name):
        if guest_name not in self.bookings:
            return f"No booking found for '{guest_name}'"
        del self.bookings[guest_name]
        return f"Booking canceled for '{guest_name}'"

# Start the Pyro4 daemon and register the object
def main():
    daemon = Pyro4.Daemon()  # Start a Pyro daemon
    ns = Pyro4.locateNS()  # Locate the name server
    hotel_booking = HotelBooking()  # Instantiate the class
    uri = daemon.register(hotel_booking)  # Register the object instance
    ns.register("hotel.booking", uri)  # Register with a unique name
    print("Hotel Booking Server is running...")
    daemon.requestLoop()  # Keep server running

if __name__ == "__main__":
    main()
```

Hostel_client.py

```
import Pyro4

# Connect to the remote object
hotel = Pyro4.Proxy("PYRONAME:hotel.booking")

while True:
    print("\n1. Book a Room\n2. Cancel Booking\n3. Exit")
    choice = input("Enter your choice: ")

    if choice == "1":
        guest_name = input("Enter guest name: ")
        print(hotel.book_room(guest_name))

    elif choice == "2":
        guest_name = input("Enter guest name: ")
        print(hotel.cancel_booking(guest_name))

    elif choice == "3":
        print("Exiting...")
        break

    else:
        print("Invalid choice! Please try again.")
```



```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

(.venv) PS C:\Users\shyam\PycharmProjects\PythonProject3> python hostel_server.py
Hotel Booking Server is running...
```

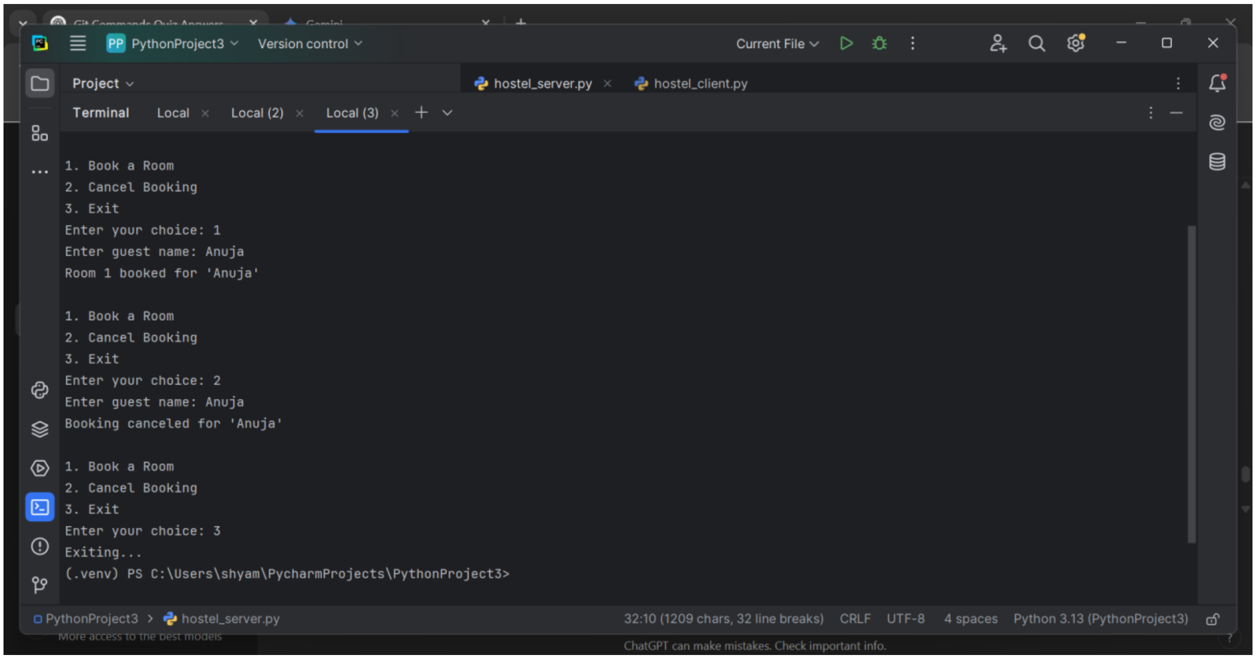

```
1. Book a Room
2. Cancel Booking
3. Exit
Enter your choice: 1
Enter guest name: Anuja
Room 1 booked for 'Anuja'

1. Book a Room
2. Cancel Booking
3. Exit
Enter your choice: 2
Enter guest name: Anuja
Booking canceled for 'Anuja'

1. Book a Room
2. Cancel Booking
3. Exit
Enter your choice: 3
Exiting...
(.venv) PS C:\Users\shyam\PycharmProjects\PythonProject3>
```